[IQR: $13,220-38,966]). Adjusting for patient and facility characteristics, total charges for lung ($ 2396, p=0.03), colorectal ($10,844, p<0.0001), and pancreatic cancers ($ 7504, p<0.0001) were significantly higher than liver cancers. Significant predictors of LOS included race/ethnicity (compared to whites, 15% longer for blacks (IRR=1.15, 95% CI: 1.13-1.17) and 4% longer for Hispanics (IRR=1.04, 95% CI: 1.02-1.06) and hospital location (compared to rural hospitals, 12% longer for non-teaching urban (IRR=1.12, 95% CI: 1.10-1.14) and 15% longer for teaching urban (IRR=1.15, 95% CI: 1.13-1.17). **CONCLUSIONS:** We found significant differences in proportion of hospitalizations, LOS, and charges between cancer types, moderated by patient and facility characteristics. Of the cancer sites considered, liver cancers had the lowest incidence of hospitalization, shortest LOS, and lowest total charges.

PCN54

ASSESSMENT OF RENAL FUNCTION AMONG PATIENTS WITH BONE METASTASES FROM SOLID TUMORS

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OBJECTIVES: To examine the change in renal function among patients with bone metastases (BM) from solid tumors (ST) **METHODS:** A retrospective cohort study was conducted using OSCER (Oncology Services Comprehensive Electronic Records) database, containing electronic medical records from >50 outpatient oncology/hematology practice groups in the US. The study sample included adults (age >= 18 years) diagnosed with a single ST and BM between 01/01/2012 through 09/30/2013. Changes in renal function from baseline (6 months prior to the BM diagnosis) over the follow-up period were assessed. The outcomes of interest include clinically-meaningful increase in serum creatinine (SeCr) [defined as 0.5 mg/dL increase in patients with normal baseline levels (<1.4 mg/dL), and 1.0 mg/dL increase in those with elevated baseline levels (≥1.4 mg/dL)], estimated glomerular filtration rate (eGFR), and chronic kidney disease (CKD) stage (1: eGFR>90 to 5: eGFR<15). Descriptive analysis was conducted to examine baseline patient characteristics and change in renal function. **RESULTS:** A total of 6,380 patients met the eligibility criteria; majority of them were female (52%), Caucasian (70%), with mean age of 67 years (Standard Deviation [SD]: 12), mean SeCr of 1.0 (SD: 0.5), and mean eGFR of 77 (SD: 23) at baseline. During a median follow-up of 191 days after BM diagnosis, an average 11-point (SD: 17) reduction (relative reduction: 13%) in eGFR from baseline was observed. Clinically-meaningful increases in SeCr were observed in 10.8% of the patients overall; among 7.2% patients from elevated (n=706) and 11.3% from normal (n=5,674) baseline SeCr levels. Increases in CKD stage from baseline levels were observed in 36% of the patients. **CONCLUSIONS:** Worsened renal function was observed among patients with ST and BM. Given the use of bone targeting agents in this patient population, future analysis is needed to understand the impact of those agents, such as zoledronic acid, on renal function.

PCN55

EPIDEMIOLOGY AND TREATMENT OF SOFT TISSUE SARCOMA IN THE EU5

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OBJECTIVES: Explore the epidemiology and treatment of soft tissue sarcoma (STS) in EU5. **METHODS:** Epidemiology of STS was derived from the Kantar Health (KH) CancerMPact database, sources for which include country specific cancer registries, published scientific studies and proprietary physician surveys conducted in March 2015 comprising 76 doctors seeing an average of 3,210 STS patients per month. Country specific age and gender incidence rates were applied to country population data to determine number of newly diagnosed STS patients. Annual non-metastatic and metastatic progression rates and annual non-metastatic and metastatic survival rates are used to calculate total number of surviving patients up to 10 years after diagnosis. Treatment data was determined from the physician surveys and was country specific. **RESULTS:** Incidence of STS ranged from 3.1 – 4.1 per 100K . Among all incident STS patients, 74% were non metastatic and 16% were metastatic. Surgery/Drug/Radiation rates were, respectively, 43%/37%/19% in France, 52%/42%/22% in Germany, 49%/31%/27% in Italy, 41%/34%/29% in Spain and 45%/28%/27% in the UK. Among metastatic patients, 41% to 44% received a first line drug. There was wide variation in the % of first line that received second line (range 35% - 58%) and second line who received third (17% - 30%). Among first line drug treated doxorubicin plus ifosfamide was the preferred regimen in France, Germany and Spain whereas doxorubicin monotherapy was preferred in UK. Trabectedin and pazopanib were used relatively frequently as second or third line treatments. **CONCLUSIONS:** This study confirms the rarity of soft tissue sarcoma in EU5. Doxorubicin plus ifosfamide is the most commonly used treatment in first line across EU5, trabectedin and pazopanib tend to be the most utilized treatments in second and third line. Variance to the trend is apparent in France and Spain second line and in France and UK third line.

PCN56

SYSTEMATIC REVIEW OF BURDEN OF PANCREATIC CANCER

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OBJECTIVES: Pancreatic cancer is considered one of the toughest cancers to treat, with extremely poor prognosis. The objective of this research was to conduct a systematic review of epidemiology and the burden of pancreatic cancer. **METHODS:** A systematic literature search for epidemiology and the burden of disease studies was undertaken for the databases Pubmed, Embase, Biosis, Google Scholar and Cochrane. Data was collected for the study type, methods, country and key findings. Extracted study data included pancreatic cancer incidence, complications, mortality, available treatment options, as well as healthcare resource utilization and medical costs associated with pancreatic cancer. Critical analyses of study quality and data gaps were analyzed at the country level. **RESULTS:** A total of 328 studies were identified based on the keywords. Of these, 32 studies met the inclusion criteria. Studies indicate that pancreatic cancer has an extremely poor prognosis: for all stages combined, the 1- and 5-year relative survival rates are 25% and 6%, respectively. Pancreatic cancer is the fourth most common cause of cancer-related deaths in the United States and the eighth worldwide. More than 50% of patients come to clinical attention with metastatic disease, and an additional 30%–40% present with locally advanced tumors. Current treatments include surgery and palliative chemotherapy such as gemicitabine and gemcitabine/erlotinib combination. Recently nab-paxclitacel was approved based on a 1.8 month improvement in the overall survival. **CONCLUSIONS:** This systematic review shows that patients with pancreatic cancer have a very low survival rate. There is an urgent need for new treatments for these patients.

PCN57

THE EFFECT OF METFORMIN USE AND MORTALITY AMONG THOSE WITH PANCREATIC CANCER AND TYPE 2 DIABETES MELLITUS: FINDINGS FROM A NATIONWIDE POPULATION RETROSPECTIVE COHORT STUDY

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OBJECTIVES: This study evaluated the effect of metformin use on survival in pancreatic cancer patients with curative resection and type 2 diabetes mellitus (T2DM). **METHODS:** A total of 28,862 were initially identified from Korea Center Cancer Registry (KCCR) who had diagnostic code for pancreatic carcinoma between 1 January 2005 and 31 December 2011. Among them, those with curative resection or T2DM and aged over 40 years were included. Subjects were classified as metformin user group if they were prescribed metformin around the time of diagnosis for pancreatic cancer. Medication possession ratio (MPR) of more than 80% was considered as acceptable adherence. Survival from pancreatic carcinoma was identified from the linkage of National Population Registry of the Korea National Statistical Office with KCCR through December 31, 2013. Several sensitivity analyses were performed to examine the effect of immortal time bias, and confounding variables. **RESULTS:** The study included 764 subjects with T2D and pancreatic cancer with curative resection, 530 of which were exposed to metformin. In multivariable analysis, the adjusted risk for pancreatic cancer specific mortality of metformin user was significantly lower than that of metformin non-user (hazard ratio, 0.73; 95% CI, 0.61 to 0.87; P < 0.001). The adjusted risk for mortality was also significantly lower in MPR of more than 80% compared with that of MPR of less than 80% (HR, 0.60, 95% CI: 0.47-0.76, p-value<0.001). In addition, similar results were found from a serial of seneitivity analysis. **CONCLUSIONS:** Metformin use in diabetic patients with pancreatic cancer is associated with improved survival. This may provide a rationale for further prospective study of the use of metformin as an adjunct to the standard of care in the treatment of pancreatic cancer.

PCN58

STATINS USE AND THE RISK OF HEMATOLOGICAL AND NON-HEMATOLOGICAL MALIGNANCIES: A META-ANALYSIS OF 53 OBSERVATIONAL STUDIES

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OBJECTIVES: Statins are frequently prescribed drugs worldwide, used for the management and prevention of coronary artery diseases. In contrast to early concerns over carcinogenicity of statins, recent evidences suggest that statins may have chemo-preventive potential against variety of cancers. We performed a detailed meta-analysis of observation studies to quantify the association between statins and risk of cancers. **METHODS:** A comprehensive search was performed in EMBASE®/Cochrane/Pubmed to retrieve studies investigating association of statins and hematological and non-hematological cancers (prostate, breast, lung, and colorectal). The studies were screened and abstracted by two independent reviewers. The studies were assessed for heterogeneity and pooled relative risks and 95% CIs were calculated using fixed effect and random effect models. **RESULTS:** Of the 4500 retrieved articles, 53 observational studies (27 case control and 26 cohort) contributed to analysis. The use of statins had modest chemo-protective potential against non-hematological cancers (prostate, breast, lung, and colorectal taken altogether). However, the association did not reach statistical significance (RR=0.93; 95% CI, 0.87 to 1.0, p=0.09). There was no significant association between statins use and risk of prostate (RR=0.93; 95% CI, 0.79 to 1.09, p=0.16), breast (RR=0.97; 95% CI, 0.91 to 1.03, p=0.3), lung (RR=0.90; 95% CI, 0.75 to 1.08, p=0.25), and colorectal cancer (RR=0.94; 95% CI, 0.88 to 1.0, p=0.06). In contrast, statins use was associated with significant reduction in risk of hematological malignancies (RR=0.82; 95% CI, 0.67 to 0.99, p=0.04). Following the statins use, risk of non-hodgkin's lymphoma (RR=0.69; 95% CI, 0.49 to 0.96, p=0.03) was reduced whereas no association was observed with lymphoma (RR=0.99; 95% CI, 0.37 to 2.69, p=0.99). **CONCLUSIONS:** Our meta-analysis results demonstrated that statins were associated with a modest reduction in risk of non-hematological cancers, when taken for management of hypercholesterolemia. On the contrary, statins demonstrated chemo-protective potential against risk of hematological malignancies.

PCN59

ADJUSTING FOR CROSS-OVER IN ONCOLOGY TRIALS: APPROACHES TAKEN TO SUPPORT DRUG REIMBURSEMENT IN AUSTRALIA

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OBJECTIVES: Trials of new oncology treatments often allow patients to crossover from control to experimental treatment either at disease progression or a specific time point. If crossover occurs after progression, progression free survival is largely unaffected; however overall survival (OS) is confounded in the control arm. Patients switching treatments often have different prognoses, resulting in a biased estimated OS difference. Advanced statistical methods to adjust for crossover include Rank Preserving Structural Failure Time (RPSFT) models, Inverse Probability of Censoring